

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-553-1  
Relating to Exemptions Under Section 27156  
Of the Vehicle Code

BD Engine Brake, Inc.  
BD XPower Performance Chip

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Section 39515 and Section 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED; That the installation of the BD XPower Performance Chip, manufactured and marketed by BD Engine Brake, Inc., A10 33733 King Road, Abbotsford, B.C. Canada, V2S 7M9, has been found not to reduce the effectiveness of the applicable vehicle pollution control system and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for installation on 1999 through 2002 model year Ford F-250 and F-350 model trucks equipped with 7.3L Powerstroke diesel engines. The BD XPower Performance Chip is an electronic controller that alters the fuel injection and turbocharger boost pressure to increase engine power.

This Executive Order is valid provided that the installation instructions for the BD XPower Performance Chip will not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

This Executive Order shall not apply to any BD Engine Brake, Inc., BD XPower Performance Chip advertised, offered for sale, sold with, or installed on a motor vehicle prior to or concurrent with the transfer to an ultimate purchaser.

Changes made to the design or operating conditions of the BD XPower Performance Chip, as exempt by the Air Resources Board, which adversely affect the performance of the vehicle's pollution control system shall invalidate this Executive Order.

Marketing of the BD XPower Performance Chip using any identification other than that shown in this Executive Order or marketing of the BD XPower Performance Chip for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of the system shall not be construed as exemption to sell, offer for sale, or advertise any component of the kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of the BD XPower Performance Chip may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on submitted emissions test data, conducted at Automotive Testing and Development Services, Inc., on a 2002 model year Ford F-250 equipped with a 7.3L Powerstroke diesel engine. Testing consisted of comparative Cold Start 505 Federal Test Procedures. The following test results, in grams per mile, are listed below.

2002 Ford 7.3L Diesel	TEST	HC	CO	NOx	PM	Opacity(%)
	Baseline	0.295	1.743	6.941	0.145	8.37
	Modified	0.293	1.797	7.419	0.150	5.67
	% Difference	-0.68	+3.1	+6.9	+3.4	-32.2

Results from the emission tests showed that vehicle emissions with the BD XPower Performance Chip installed did not cause exhaust emissions to exceed the baseline emissions by more than the allowed limits of 10 percent or 0.1 grams per mile on Hydrocarbon (HC) and Oxides of Nitrogen (NOx), 15 percent or 1.0 grams per mile Carbon Monoxide (CO) and 15 percent or 0.03 grams per mile particulate matter (PM), as specified in the "Procedures for Exemption of Add-On and Modified Parts".

This Executive Order is also based on the On-Board Diagnostic II (OBDII) testing and opacity testing conducted on the same test vehicle. Opacity test results are listed above. Test data showed that the Diesel Controller when installed on the vehicles did not significantly affect the vehicle's smoke opacity or the ability to perform its OBDII monitoring.

In addition to the foregoing, the ARB reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF BD ENGINE BRAKE'S BD XPOWER PERFORMANCE CHIP.

No claim of any kind, such as "Approved by the Air Resources Board", may be made with respect to the action taken herein in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the

order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination is made, after the hearing, that grounds for revocation exist.

Executed at El Monte, California, this 13<sup>TH</sup> day of January 2003.



Allen Lyons, Chief  
Mobile Source Operations Division